

The listing of the claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (Currently Amended): Synthesis furnace having a furnace chamber surrounded by a circumferential furnace wall, in which a plurality of burners disposed essentially in one plane, with burner exit direction directed downward, and a plurality of reaction tubes disposed essentially vertically and parallel to one another are disposed, whereby the reaction tubes are heated from the outside, by means of the firing burners, ~~characterized in that~~ wherein

at least the outer burners (5) disposed in the region of the furnace wall (2) have a burner exit direction (R) that is inclined relative to the vertical, leading away from the center of the furnace.

Claim 2 (Currently Amended): Synthesis furnace according to claim 1, ~~characterized in that~~ wherein

the incline of the burner exit directions (R) of the individual burners (5) is different.

Claim 3 (Currently Amended): Synthesis furnace according to claim 2, ~~characterized in that~~ wherein

the incline of the burner exit directions (R) of the burners (5) increases toward the outside, toward the furnace wall (2), proceeding from the center of the furnace.

Claim 4 (Currently Amended): Synthesis furnace according to claim 1 ~~or one of the following, characterized in that~~ wherein

the incline angle, proceeding from the center of the furnace, lies between 0 and 10°, preferably between 0 and 5°.

Claim 5 (Currently Amended): Synthesis furnace according to claim 1 ~~or one of the following, characterized in that~~ wherein

the burners (5) are installed with inclined burner exit direction (R), in total, and/or their burner exit opening is disposed at an incline.

Claim 6 (Currently Amended): Synthesis furnace according to claim 5, ~~characterized in that~~ wherein

the incline of the burner exit directions (R) is adjustable.

Claim 7 (Currently Amended): Synthesis furnace according to

claim 6, ~~characterized in that~~ wherein

in order to adjust the inclines, a control that takes the operating parameters of the synthesis furnace into account is provided.